

Transcript: TDA and Its Lightweight Characteristics

Tire-Derived Aggregate (TDA) provides a cost-effective alternative to conventional aggregate for use in lightweight backfill projects.

TDA is also good for the environment because it reduces the need for mined aggregates such as gravel, and keeps thousands of tires out of landfills and stockpiles with every application.

“As an engineer who has used TDA in retaining wall and embankment projects, I’ve seen nothing but great results,” said xx. “Not only does the product help solve California’s waste tire problem, but it’s durable and can help save money.”

Embankments

Constructing highway embankments on weak soils can result in slope instability and excessive settlement. TDA is an excellent lightweight fill alternative because it weighs 50 percent less than conventional soil fills. As a result, embankments constructed with TDA instead of soil have greater stability with less settlement.

TDA has been used to construct large embankments in two major projects in California. The first was in 2000 at the Interstate 880 interchange at Dixon Landing in Milpitas. The project used 660,000 waste tires and saved California taxpayers nearly \$240,000. The second project, completed in 2009, was at Confusion Hill along U.S. 101 near Garberville. The project used 270,000 waste tires and saved the state an estimated \$320,000.

Road Slide Repair

As in embankment projects, the lightweight property of TDA decreases loading on sub-surface soils in road slide repair. When using TDA in place of soil fill, less excavation is typically needed to reach the desired factor of safety for the final slope. TDA is less expensive than other lightweight fill materials such as volcanic rock and geo-foam and is free-draining, making it an excellent alternative for use in road repair.

Retaining Wall Backfill

TDA can also be used as a replacement for conventional soil backfill behind retaining walls. Because it weighs less than soil, TDA reduces the lateral forces on the wall. This allows engineers to design retaining walls with less steel reinforcement, resulting in additional savings.

CalRecycle encourages the use of TDA in lightweight backfill road construction projects. Learn more about the many benefits of TDA and help build a better California. Visit www.PavingGreenRoads.com for technical information and assistance. CalRecycle TDA engineering experts are available for consultation.

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